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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,447

09/19/2006

Markku Rosnell

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VENABLE LLP

P.O. BOX 34385

WASHINGTON, DC 20043-9998

EXAMINER

ANDREWS, DAVID L

ART UNIT

PAPER NUMBER

3672

MAIL DATE

DELIVERY MODE

04/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,447	Applicant(s) ROSNELL, MARKKU	
	Examiner DAVID ANDREWS	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-11,13,14,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-11,13,14,16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/14/2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed 1/14/2009 has been entered.

Response to Arguments

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 10 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims all recite a specific definite angle that is or depends on the cutting angle of the bit face. However, claim 1 now recites that this cutting angle is self-adjustable, which would appear to conflict with having a specific definite angle as later claimed.

Claims 2, 4, 11, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 recites "wherein the shank comprises a structure, which projects in two or more directions" and "the blade assembly further comprising: arm elements..." which appear to refer to the same structure since the examiner does not find an embodiment with multiple structures that extend as claimed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6, 7, 11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas (US 1,402,684). Thomas discloses a blade assembly comprising: a shank (10); a bit head (11); wherein the shank comprises element for mounting the bit head (fig 1); wherein the bit head comprises at least one disk shaped bit member (20, 21), which rotates during a drilling/boring operation and which has an outer rim thereof working as an actual cutting face in drilling/boring, and wherein the at least one bit member is disposed at an angle of less than 45° relative to a drilled surface (fig 1), wherein the at least one bit member is adapted to have a flexible attachment to the shank, wherein the flexible attachment to the shank enables self-adjustment of its cutting angle (col. 3, lines 31-60 describes a self-adjustment of the cutting angle); wherein the shank comprises a structure which projects in two or more directions (10 extends in all radial directions into 11), the blade assembly further comprising: arm elements projecting laterally from the shank in a substantially horizontal plane (14/15 extend from 11), the arm element being shaped such that the angle of each bit member lies within the range of 5-30° relative to the drilled surface (fig 1), wherein the at least one bit member mounted on the arm elements in a dismountable fashion (via bolts 24/25); wherein the shank comprises an adjuster configured to adjust a distance of the

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at least one bit member with respect to a center axis of the shank (the connection 24/25 through 18/19 allows such); wherein the adjuster comprises an elongated attachment hole present in the shank (18/19); wherein the at least one bit member is mounted on the arm elements of the structure using a screw connection (bolts 22/25 are screw connections); and wherein the elongated attachment hole is present in one or more arm elements of the shank (18/19 are in 14/15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas in view of Brown (US 2,329,388). Thomas discloses all the limitations of these claims, as applied to claim 1 above, except the bit member having means for enhancing the drilling action, or a pilot drill. Brown discloses a blade assembly comprising a serrated edge for enhancing drilling action (15) and a pilot hole boring central drill (11) wherein the drill is a twist drill. It would have been obvious to one of ordinary skill in the art at the time of invention to provide the centering pilot twist drill and cutting surface serrations as Brown on the drill of Thomas since combining prior art elements according to known methods to yield predictable results is considered obvious to one of ordinary skill.

Claims 5, 9, 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas. Thomas discloses all the limitations of these claims, as applied to claim 1 above, and including establishing a bevel of the cutting face at an angle of 25° (fig 1), but does not disclose an inclination angle of 14.5° and/or an incidence cutting angle of 15°, nor manufacturing the bit member in 1.5-3.5 mm gauge steel sheet. However, it is considered obvious to one of ordinary skill at the time of invention to make the inclination or incidence cutting angle of 14.5° or 15° since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Further, it is considered obvious to one of ordinary skill in the art at the time of invention to use 1.5 - 3.5 mm gauge sheet steel to manufacture the bits since it has been held to be within the general skill of a working in the art to select a known material on the basis of the suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID ANDREWS whose telephone number is (571)272-6558. The examiner can normally be reached on M-F, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571)272-6558. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David J. Bagnell/
Supervisory Patent Examiner, Art Unit 3672

DLA
4/23/09